On the Proper Motion of Lacaille, 4336, *Mag.* 5·5.
By R. T. A. Innes.

This star (R.A. 10^h 26^m 42^s, Dec. $-53°$ 6′, 1880) with a 8·2 mag. companion (Cordoba Zones 10^h, 1929) makes the pair *h* 4329 of which I have found the following measures :

1837·1	17°·1	17″·5	*h*	2 nights
1846·3	29·6	17·5	Jacob	
1873·2	63·7	21·9	Russell	1 night
1881·5	71·7	23·4	Hargrave	,,

This star is sometimes called *Y Velorum* : it is a white star, the *comes* being red, according to *h* and Russell.

The change of position is well accounted for by applying to Lac. 4336 a proper motion of 0″·44 towards 297°·5, or R.A. -0^s·043 Dec.$+0″$·203. This proper motion is not too inconsistent with the positions I have at hand, viz. the B.A.C., the A.G.C., and Stone's Cape Catalogue.

It has occurred to me that, if Mr. Stone were asked, he would kindly supplement my remarks with a comparison of the meridian observations, which might be somewhat reconciled with each other now that we have an independent determination of the proper motion.

Sydney: 1895 *November* 1.

Mr. Innes's conclusion that the alterations in position angle and distance of these two stars are principally due to the proper motions of the star, Lacaille 4336, appears to me quite correct. I find on reference to my manuscript of proper motions that the principal star has proper motions of about -0^s·051 in R.A. and $-0″$·16 in N.P.D. The first depends entirely upon a comparison between Taylor and Stone, and probably requires a correction of about $+0^s$·0c5 on account of systematic errors of Taylor's R.A. The proper motion in N.P.D. depends on comparisons between Stone and four other catalogues.—E. J. STONE.

Setting Apparatus for a Transit Circle.   By W. E. Cooke, M.A.

(Communicated by the Secretaries.)

I beg to offer the following suggestions for an apparatus to facilitate setting a transit circle in Z D. I cannot attempt to enter into details, for so much depends upon the shape of the instrument and the class of work for which settings are required. But the general idea will be readily grasped by the aid of figures 1 and 2, where 1 represents the apparatus viewed from north or south, 2 from east or west. C is a light flanged or grooved circle attached to the axis, parallel to and about the same size as the graduated circle. Attached to the rim is a non-extensible cord, the end hanging vertically and carrying a pointer P. The diagram shows P as a framework, across the middle of which a horizontal thread is stretched, capable of a small vertical adjustment by means of a rackwork.
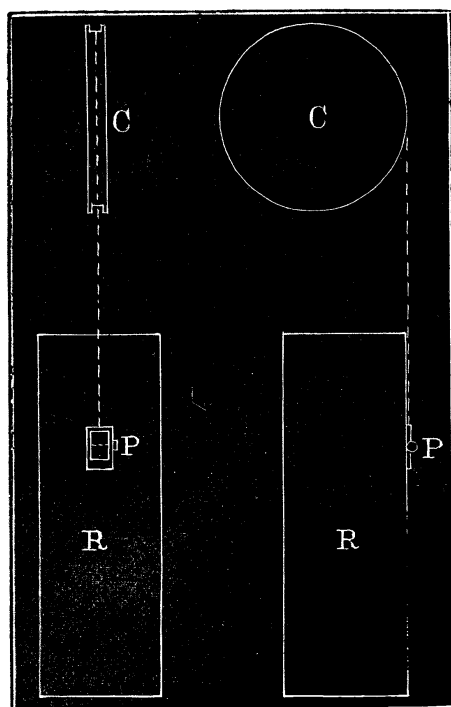

Fig. 1.   Fig. 2.

As the telescope is revolved, P will move up or down, and its vertical height above any arbitrary fixed point will give an indication of the declination of the star towards which the telescope is directed.

R is a vertical cylinder which rotates by clockwork once in twenty-four sidereal hours, and can be readily adjusted on its